Resection of Recurrent Carcinoma of The Esophagus

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THERE HAS BEEN A GROWING FEELING recently among surgeons that carcinoma of the esophagus is an incurable lesion and that only palliative operation is indicated, if any. It is true that surgical cure is relatively rare, but palliation by resection is common. Following is a report of a case in which, following resection known to be inadequate, reoperation could not be done immediately because of the condition of the patient. Resection was carried out again 15 months later when symptoms of recurrence developed, and thereafter the patient was asymptomatic.

REPORT OF A CASE

The patient, a man 59 years of age, was admitted to hospital Nov. 30, 1949, with a history of difficulty in swallowing which had begun suddenly after a scare, four and one-half months previously. Since then the patient had ingested only liquids and the body weight had decreased ten pounds.

Upon x-ray examination with barium swallow, a constricting lesion of the mid-esophagus was noted. Esophagoscopic examination was carried out and a stenotic lesion was observed 39 cm. from the incisors. Squamous cell carcinoma of the esophagus was diagnosed by biopsy.

At operation a 3x4 cm. tumor of the esophagus was observed below the aortic arch without evidence of regional extension. The esophagus was resected from 5 or 6 cm. above the lesion to the stomach. The stomach was mobilized and anastomosed to the esophagus below the aortic arch. In pathological examination of frozen sections of the removed specimen no evidence of tumor was noted at the margins. The postoperative course was very stormy, owing to pneumonia and particularly to auricular fibrillation and flutter. The patient was treated with digitalis and quinidine. He remained critically ill for about one month. The cardiac irregularity was controlled but the patient continued unable to eat and his condition continued to deteriorate until quinidine was discontinued. He then began to recover and soon was eating and feeling well.

When examination of permanent pathological sections was carried out, residual tumor extending to the margin of the resected specimen was noted in one small subepithelial focus, but it was felt that further operation was not indicated at that time because of the greatly increased operative risk and the lack of definite proof of residual tumor. The patient ate well and remained asymptomatic until January, 1951, when frequent regurgitation occurred and the body weight decreased eight pounds. Upon x-ray examination a 2.5 cm. well-defined napkin-ring defect was observed at the lower end of the esophagus at the esophagogastric anastomosis. A biopsy specimen was taken from a tumor observed by esophagoscope 26 cm. from the incisors, and it was reported as squamous cell carcinoma.

Thoracotomy was done March 7, 1951, and a recurrent tumor 3 to 4 cm. in diameter was observed at the site of anastomosis. It was adherent to the aortic arch and hilum of the lung. The tumor was resected and anastomosis was carried out anterior to the aortic arch after frozen sections revealed adequate margins on both ends of the specimen.

The patient did well until the sixth postoperative day. Then tension pneumothorax on the left side developed, apparently owing to leakage at the site of anastomosis. Insertion of a tube intercostally relieved the condition, but on the following day bronchoscopy was necessary for relief of atelectasis of the right lower lobe. Purulent fluid drained from the intercostal tube. On March 17, jejunostomy was done and a tube was inserted for feeding. Homogenized milk only was infused. Nothing was given by mouth. On March 27 auricular flutter developed. It was eventually controlled by administration of digitalis and quinidine. On March 28, rib resection was carried out to drain the area of empyema and the intercostal tube was removed.

The anastomotic fistula healed gradually. Oral feeding was begun again and the patient was eating a soft diet by April 14, 1951. The tube to the jejunum was subsequently removed, and the patient was discharged from the hospital on June 1, 1951. At that time, the lung was expanding to obliterate the space at the site of empyema and the patient was eating well and gaining weight. He was examined at frequent intervals thereafter. He returned to work as a plumber in March, 1952. Gastrointestinal x-ray studies in July, 1952, showed only some scarring at the anastomosis, and there was no change from the preceding gastrointestinal series. The patient said he felt well and ate well. At last report, September 24, 1953, the patient was asymptomatic and was working full time.

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Diagnosis of Subdiaphragmatic Abscess By Needle Biopsy of the Liver

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IN A CASE in which neither clinical observation nor laboratory studies had given any indication of the presence of the lesion, subdiaphragmatic abscess was diagnosed after examination of a biopsy specimen taken by needle from the liver. The procedure caused no untoward complication.

CASE REPORT

A 55-year-old man was admitted to hospital with complaint of epigastric burning sensation after meals for two years, a loss of 20 pounds in weight in six months, and melena and weakness of two weeks' duration. He was obese, pale and apparently acutely ill. The blood pressure was 120 mm. of mercury systolic and 70 mm. diastolic, the pulse rate 100 per minute, and the temperature 99 degrees F. The abdomen was distended and a mass was felt in the epigastric area. The liver was palpable three fingerbreadths and the spleen one fingerbreadth below the respective costal margins.

Erythrocytes numbered 2,280,000 per cu. mm. and the hemoglobin value was 52 per cent. Leukocytes numbered 9,600 per cu. mm. and the cell differential was within normal range. No abnormality was noted in urinalysis. The result of a serologic test for syphilis was negative. An obstructive pyloric lesion with 80 per cent retention of barium was observed roentgenographically.

At operation a large annular metastatic antral adenocarcinoma arising from the head of the pancreas was observed and total gastrectomy, splenectomy, esophagojejunostomy, and entero-enterostomy were carried out.

In the postoperative period the patient had low-grade jaundice and pleural effusion on the left side. He was dis-

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charged a month after the operation. Six months later, not having felt fully well meanwhile, the patient was readmitted because of increasing anorexia and epigastric pain and jaundice of two weeks' duration. Erythrocytes numbered 3,200,000 per cu. mm. and the hemoglobin value was 63 per cent. Leukocytes numbered 10,550 per cu. mm. and the cell differential was within normal limits. The icteric index was 24 units. The alkaline phosphatase content of the blood was 10.3 units (Bodansky) and the total cholesterol content 258 mg. (43 per cent esters) per 100 cc. The thymol turbidity was 15.5 units and thymol flocculation 3 plus. Total protein content of the serum was 7.2 gm. per 100 cc.—3.8 gm. of albumin and 3.4 gm. of globulin.

During the next two weeks the icteric index declined to 8 units. However, spiking fever developed, with peaks up to 104 degrees F. accompanied by occasional chills. Because of the possibility of metastatic carcinoma of the liver, a biopsy specimen was taken by needle from the liver, and examination of it suggested the possibility of a subdiaphragmatic abscess. (See pathologist's report in later paragraph.) Upon operation a large localized subdiaphragmatic abscess was exposed, incised, and drained. The patient then became afebrile and asymptomatic and had good appetite. He was discharged from the hospital but was readmitted three months later because of return of fever and jaundice three days previously. Surgical exploration was carried out and the subdiaphragmatic abscess over the dome of the liver was again drained. No evidence of metastasis of carcinoma to the liver was observed, but as the gallbladder was distended and there were neoplastic nodules in the region of the common duct, cholecystojejunostomy was performed. Five weeks later the patient was discharged feeling more comfortable than at any time in the previous two years. A month and a half afterward, however, he was readmitted with complaint of severe subcostal pain on the right side, pain in the back, recurrence of jaundice and frequent nausea and vomiting for five days. The edge of the liver was palpable five fingerbreadths below the right costal margin but quality of the surface could not be determined because of ascites. The patient died three months later, slightly more than two and one-half years after onset of symptoms.

PATHOLOGIST'S REPORT

The specimen (which had been removed by needle) was a core of hepatic tissue and several smaller fragments consisting of irregular clusters of degenerating polymorphonuclear leukocytes and fibrin that were adjacent to but did not form part of the core of tissue. The sinusoids at the center of the lobules were dilated and the reticuloendothelial cells there were slightly hyperplastic. No changes were noted in the hepatic cells. The portal triads were unchanged.

DISCUSSION

At the time of the needle biopsy of the liver, the clinical diagnosis was recurrent carcinoma complicated by either obstructive cholangitis or metastatic carcinoma of the liver. There was no indication of subdiaphragmatic abscess. It is a custom in the hospital in which the patient was treated to refer such diagnostic problems related to the liver to a team of internists who are specifically interested in needle biopsy and trained in the technique. Details of the evaluation and preparation of the patient and of the technique have been published.[1] The needle biopsy was done successfully. Experts in the field of liver biopsy specifically admonish that, when a suppurative process is suspected in the right upper quadrant, either above or below the diaphragm, needle biopsy should not be done because of the risk of spreading the inflammatory process. Had this been suspected clinically in the present case, the procedure probably would not have been carried out. However, the subdiaphragmatic abscess remained localized to the right upper quadrant. Therefore, it must be concluded that in this patient the needle biopsy procedure did not alter the course of the infectious process.

Examination of the specimen led to suspicion that an extrahepatic abscess (probably subdiaphragmatic) was present, in light of the absence of evidence of an inflammatory disease in the core of hepatic tissue and the presence of extrahepatic fragments of necrotic acute inflammatory cells. In view of the absence of clinical evidence of disease of the abdominal wall, pleura or lungs, it was presumed that the inflammatory process lay between the abdominal wall and the hepatic capsule. This was borne out by observation at operation.

SUMMARY

A case report is presented wherein needle biopsy, used to assist in the differential diagnosis of hepatic disease, led to suspicion of the presence of a subdiaphragmatic abscess. This was confirmed by surgical exploration. Thrusting the needle through the abscess did not, in this case, cause extension of the inflammatory process.

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REFERENCE

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Pulmonary Paraffinoma Verified At Thoracotomy

Report of Two Cases

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SINCE 1925 when Laughlen[9] made the pioneer report on lipoid pneumonia, and Ikeda's[8] study in 1937 when the name paraffinoma was aptly given to a lung tumor made up of mineral oil, reports of many cases have appeared.[4,5,6,7] Most of the reports are of cases in which the tumor was noted in postmortem examination; few deal with verification of the tumor at the operating table. Brown and Biskind[2] in 1941 reported a case in which surgical removal of a paraffinoma was carried out. Berg and Burford[1] in 1950 reported six such cases; and Dailey in the same article commented upon three patients who had thoracotomy for mineral oil granuloma. Schneider[10] in 1949 wrote a detailed account on five cases. A year later Flick,[3] reporting a case in which surgical treatment was carried out, reemphasized the gross similarity between this lesion and carcinoma. The authors herewith add reports of two cases in which paraffinomas were removed at operation.

CASE 1. A man 60 years of age entered the hospital in September 1950 because of fatigue and pain in the left anterior thoracic region of two months' duration. The pain occurred upon exertion and was relieved by rest. There were no other symptoms except occasional bouts of "acid indigestion," of which the patient had complained in 1947. At that time a small esophageal hiatal hernia had been observed roentgenographically.